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DATE: July 18, 2012

TO: Kelley Chase, EPA Region 3 OSC
Cynthia Caporale, EPA Region 3 OASQA

THROUGH: Ex. 4 - CBI SERAS Program Manager

FROM: Ex. 4 - CBI SERAS QA/QC Officer

SUBJECT: VERIFICATION/COMPLETENESS CHECK – DIMOCK, PA LABORATORY DATA
File 1205011 FINAL R33907 06 20 12 1601.pdf

NOTE: This is a revision of the report dated July 5, 2012

INTRODUCTION

On July 14, 2012, a review of the case narratives and corresponding certificates of analysis from the EPA R3 (WO1205011 Posted June 20) was conducted at the SERAS facility in accordance with the Follow-Up Verification/Completeness Check agreed upon during our teleconference on Wednesday 2/8/12.

The assumptions for this review include the following: 1) Case narratives from the Regional labs and/or subcontract labs have been reviewed in accordance with Regional or Environmental Services Assessment Team (ESAT) protocols and contain all pertinent and complete information to conduct the completeness check. SERAS will base this review on the information provided by the laboratory and not on an actual data package; and 2) SERAS will relay any "red" flags to the EPA R3 personnel to resolve and determine data usability.

OBSERVATIONS

In accordance with Table 1 – Field and QC Sampling Summary (Rev01 - 2/3/12), Table 2 – Sample Analytical Requirements Summary (Rev01 – 2/3/12), Methods for Groundwater and Surface Water Samples and the R3 SOPs for SVOCs (R3QA201-090111), VOCs (R3QA210-030410), ICP Metals (R3QA159-021511), ICP-MS Metals (R3QA-116-021511), glycols (SW846 Method 8321/ASTM D773-11 Modified), Anions by IC (R3QA108-110811), Nitrate/Nitrite (Method 353.2 using flow injection), Total Dissolved Solids (R3QA105-110811), Total Nitrogen (Method 353.2 using flow injection) and Total Suspended Solids (R3QA106-110311), the following observations were noted and need to be clarified/resolved.

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1. For VOCs, the following qualifications should be applied to the following samples as noted based on the blank results (method, field, trip in that order) in accordance with the National Functional Guidelines: Acetone 2.00U for samples TB54, FB23, HW63z and TB56; Acetone 2.1U for FB22: and acetone 2.4U for HW64-P.
2. For VOC analysis, acetone, bromomethane, 2-butanone, Isopropylbenzene, chloromethane, dichlorofluoromethane, trichlorofluoromethane and vinyl chloride recoveries for the 5 ppb LCS exceeded the QC recovery criterion of 80-120%. The "J" flag should be carried over into the results qualifier in Scribe for sample TB55 based on the high LCS recovery (153%) for acetone.
3. For SVOCs, the following qualifications should be applied to the following samples as noted based on the blank results (method, field, in that order) in accordance with the National Functional Guidelines: Bis-2-ethylhexylphthalate 5.00U for samples FB22 and FB23; bis-2-ethylhexylphthalate 4.76U for samples

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HW64, HW64-P, HW63 and HW62; bis-2-ethylhexylphthalate 4.85U for sample HW63z; butylbenzylphthalate 5.00U for samples FB22 and FB23; butylbenzylphthalate 4.76U for sample HW64; butylbenzylphthalate 4.85U for sample HW63z; diethylphthalate 5.00U for samples FB22 and FB23; diethylphthalate 4.76U for samples HW64, HW64-P, HW63 and HW62; diethylphthalate 4.85U for sample HW63z; di-n-butylphthalate 5.00U for samples FB22 and FB23; and di-n-butylphthalate 4.76U for samples HW64, HW-64-P, HW63 and HW62; and di-n-butylphthalate 4.85U for sample HW63z..

4. For SVOC analysis, 2,4-dinitrophenol recoveries in the BS1 and NS2 were recovered at 0%. This reviewer agrees with the unusable "R" qualifier assigned to samples FB22, FB23, HW64, HW-64-P, HW63z, HW63 and HW62.
5. For SVOC analysis, 4,6-dinitro-2-methylphenol and pentachlorophenol recoveries in the BS1 were outside QC criteria. This reviewer agrees with elevating the RL to 40 ppb for FB22 and FB23; 38.1 ppb for HW64, HW-64-P, HW63 and HW62; and 38.8U for sample HW63z.
6. For TDS analysis, the RPD exceeded the QC criterion for sample HW64. This reviewer agrees with the "J" qualifier assigned by the laboratory since it cannot be ascertained if all the samples in the batch were significantly similar.
7. For glycols analysis, the 10ppb MRL for triethylene glycol was recovered at 0%. This reviewer agrees with the 25 ppb RL reported for this compound for samples FB22, FB23, HW64, HW-64-P, HW63z, HW63 and HW62. Likewise for the 5ppb MRL, the recoveries for 2-butoxyethanol and 2-methoxyethanol were outside QC limits. This reviewer agrees with the 10 ppb RL reported for this compound for samples FB22, FB23, HW64, HW-64-P, HW63z, HW63 and HW62.
8. For ICP-MS metals analysis, the LCS recovery for uranium was 117% outside of the 85-115% range. This reviewer agrees with the "J" qualifier applied to the samples with detected concentrations, HW63, HW63z, HW63z-F and HW63-F.
9. For ICP-MS metals analysis, the matrix spike recovery for selenium (134%) for sample HW63 exceeded the QC limits of 70-130%. No qualification of this sample for selenium is required for a non-detect.
10. It is assumed that all required instrument QC (RSD, %D, minimum response factors, etc.) specified by the method was run and was either within the criteria listed in the EPA R3 SOPs or qualified based on any deficiencies.

cc: Ex. 4 - CBI SERAS Project Officer
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